## 1 SEQUENCE LISTING

<110> HEINZ, ERNST GIRKE, THOMAS SCHEFFLER, JODI SILVA, OSWALDO DA COSTA E <120> PLANTS EXPRESSING DELTA-6-DESATURASE GENES, PUFAS-CONTAINING OILS FROM THESE PLANTS, AND A PROCESS FOR THE PREPARATION OF UNSATURATED FATTY ACIDS <130> 0093/000032 <140> 10/019,048 <141> 2001-12-27 <150> DE 10030976.3 <151> 2000-06-03 <150> 09/347,531 <151> 1999-07-06 <160> 13 <170> PatentIn Ver. 3.3 <210> 1 <211> 2012 <212> DNA <213> Physcomitrella patens <221> CDS <222> (319)..(1896) <400> 1 ccgagtcgcg gatcagccat cgcccgccca gggccgcctg cattgtgtgg gacggtgttg 60 gaggaggagg cagatgegeg ggegttggtg gagtegteat eegaggatet actgeggeaa 120 tacctccggg ttttggagcg ggcaaactct gttgcggctc ggaaggctat aggttcggca 180 ggagactgtt gattttatgt cgggggcatt gccattgtgg agagcggggg agactcagga 240 tottgtgagtg tgcgtgcagc gccccgactg ccgcagagcg tctgtgtatg acgaggttgt 300 tgtggagcgg cttttgaa atg gta ttc gcg ggc ggt gga ctt cag cag ggc Met Val Phe Ala Gly Gly Gly Leu Gln Gln Gly tot ete gaa gaa aac ate gae gte gag cac att gee agt atg tet ete 399 Ser Leu Glu Glu Asn Ile Asp Val Glu His Ile Ala Ser Met Ser Leu 25 tte age gae tte tte agt tat gtg tet tea act gtt ggt teg tgg age Phe Ser Asp Phe Phe Ser Tyr Val Ser Ser Thr Val Gly Ser Trp Ser 35 30

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Asn 460	Arg	Gln	Ile	Glu	His 465	His	Leu	Phe	Pro	Thr 470	atg Met	Pro	Arg	His	Asn 475	1743
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4

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Ala Leu Phe Leu Arg Glu Gln Leu Phe Lys Ser Ser Lys Leu Tyr Tyr Val Met Lys Leu Leu Thr Asn Val Ala Ile Phe Ala Ala Ser Ile Ala Ile Ile Cys Trp Ser Lys Thr Ile Ser Ala Val Leu Ala Ser Ala Cys Met Met Ala Leu Cys Phe Gln Gln Cys Gly Trp Leu Ser His Asp Phe Leu His Asn Gln Val Phe Glu Thr Arg Trp Leu Asn Glu Val Val Gly Tyr Val Ile Gly Asn Ala Val Leu Gly Phe Ser Thr Gly Trp Trp Lys Glu Lys His Asn Leu His His Ala Ala Pro Asn Glu Cys Asp Gln Thr 295 Tyr Gln Pro Ile Asp Glu Asp Ile Asp Thr Leu Pro Leu Ile Ala Trp 310 315 Ser Lys Asp Ile Leu Ala Thr Val Glu Asn Lys Thr Phe Leu Arg Ile Leu Gln Tyr Gln His Leu Phe Phe Met Gly Leu Leu Phe Phe Ala Arg 345 Gly Ser Trp Leu Phe Trp Ser Trp Arg Tyr Thr Ser Thr Ala Val Leu 355 Ser Pro Val Asp Arg Leu Leu Glu Lys Gly Thr Val Leu Phe His Tyr Phe Trp Phe Val Gly Thr Ala Cys Tyr Leu Leu Pro Gly Trp Lys Pro 395 390 Leu Val Trp Met Ala Val Thr Glu Leu Met Ser Gly Met Leu Leu Gly Phe Val Phe Val Leu Ser His Asn Gly Met Glu Val Tyr Asn Ser Ser Lys Glu Phe Val Ser Ala Gln Ile Val Ser Thr Arg Asp Ile Lys Gly Asn Ile Phe Asn Asp Trp Phe Thr Gly Gly Leu Asn Arg Gln Ile Glu 455 His His Leu Phe Pro Thr Met Pro Arg His Asn Leu Asn Lys Ile Ala 465 Pro Arg Val Glu Val Phe Cys Lys Lys His Gly Leu Val Tyr Glu Asp 485 490

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